

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES

MISSOURI CLEAN WATER COMMISSION



MISSOURI STATE OPERATING PERMIT

GENERAL OPERATING PERMIT

In compliance with the Missouri Clean Water Law, (Chapter 644 R.S. Mo. as amended, hereinafter, the Law), and the Federal Water Pollution Control Act (Public Law 92-500, 92nd Congress) as amended,

Permit No. < MO-G822xxx >

Owner: < name >
Address: < address >

Continuing Authority: < name, or Same as above >
Address: < address, or Same as above >

Facility Name: < name >
Facility Address: < physical address >

Legal Description: ¼, ¼, ¼, Sec. xx, TxxN, RxxW, < county > County

Receiving Stream: < receiving stream > < (U, C, P, L1, L2, L3) >
First Classified Stream and ID: < 1st classified stream > < (U, C, P, L1, L2, L3) > < (ID number) >
USGS Basin & Sub-watershed No.: < (USGS HUC14 #) >

is authorized to discharge from the facility described herein, in accordance with the effluent limitations and monitoring requirements as set forth herein:

FACILITY DESCRIPTION

No-Discharge Facility - Sic Code 2011-2099 & 5812

Land Application of wastes from light commercial Food Products Industry Major Group 20 (SIC Codes 2011-2099) and restaurant grease traps (SIC Code 5812) onto agricultural land for use as fertilizer and soil amendment where dry weather design wastewater flows are 10,000 gallons per day or less and are land applied in accordance with an approved Land Application Management Plan that conforms to the Best Management Practices and other requirements contained in the general permit.

This permit authorizes only wastewater, including storm waters, discharges under the Missouri Clean Water Law and the National Pollutant Discharge Elimination System; it does not apply to other regulated areas. This permit may be appealed in accordance with Section 644.051.6 of the Law.

March 23, 2001

Effective Date

Issue Date

Stephen M. Mahfood, Director, Department of Natural Resources
Executive Secretary, Clean Water Commission

March 22, 2006

Expiration Date
MO 780-0041 (10-93)

Jim Hull, Director of Staff, Clean Water Commission

DESCRIPTION OF FACILITY

The permittee shall comply with the Land Application Management Plan submitted with the general permit application and with the Land Application Rate Criteria, Best Management Practices and other requirements contained in this general permit. A summary description of the operation is as follows:

1. SIC Codes List Each Specific Waste Source (specify wastewater or sludge)

| | |
|-------|-------|
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |

2. Total wastewater design flow: _____ gallons per day.
Total annual sludge volume _____ gallons.
3. Maximum land application rate/acre/year (specify units): _____.
4. Number of acres available for land application: _____.
5. Most limiting factor for land application:
Hydraulic rate/acre/year (specify units): _____.
Pollutant rate/acre/year (specify): _____.
Nutrient rate/acre/year (specify) : _____.

FACILITY DESCRIPTION (continued)

Outfall # _____

Outfall # _____ Irrigation System Design:

The receiving stream watershed is a gaining stream setting. / into a classified lake.

/ within 2 miles of a losing stream.

Facility type is

 No-discharge Storage and Irrigation System for year round flows into lagoon.

 No-discharge Storage and Irrigation System for seasonal business and closed during remainder of year.

 Other (describe) _____

Storage lagoon dimensions are _____ by _____ feet depth.

Operating levels of storage lagoon are:

Freeboard of one (1) foot above the overflow elevation;

Maximum level of one (1) foot below overflow elevation; and

Minimum level of two (2) feet above the lagoon bottom.

Operating storage capacity between minimum and maximum operating level is

_____ gallons and _____ days including 1-in-10 year storm water flows.

Irrigation design flow is _____ gallons/year including 1-in-10 year storm water flows.

Application rates(design): _____ inch/hour; _____ inch/day; _____ inches/week; _____ inches/year.

Irrigation site(s) are a total of _____ acres.

Irrigation site(s) have field slopes less than _____ percent slope.

Vegetation grown on the irrigation site is grass land/ timber/ row crops/golf course.

Irrigation equipment type is sprinklers/ gated pipe/ perforated plastic pipe/center pivot /traveling gun/ moveable big gun.

APPLICABILITY

1. This general permit authorizes the land application of process wastewater and sludges from light commercial Food Products Industry Major Group 20 (SIC Codes 2011-2099) and restaurant grease traps (SIC Code 5812). See the description of SIC Codes listed at the end of this permit. Wastes may be land applied onto grass land, crop land, or timber land at rates suitable for beneficial use as organic fertilizer and soil conditioner.
2. A separate general permit is required for each county where waste materials will be land applied. If desired, the permittee may choose to obtain a separate permit for each land application site.
3. The general permit issued to each facility will authorize only those wastes and facilities included in the permit application and summarized in the Facility Description section of the general permit.
4. The general permit application shall include a Land Application Management Plan to address the Land Application Rate Criteria, Best Management Practices and other requirements contained in this permit. The permit contains conservative limits in order to reduce monitoring and reporting. If alternate limits are desired, a site-specific permit must be obtained.
5. Any owner/operator authorized by a general permit may request to be excluded from the coverage of the general permit and apply for a site-specific permit (10 CSR 20-6.010(13)).
6. If at any time the Missouri Department of Natural Resources determines that the quality of waters of the state may be better protected by requiring the owner/operator of a permitted site to apply for a site specific permit, the department may require any person to obtain a site specific operating permit (10 CSR 20-6.010(13)).

The department may require the permittee to apply for and obtain a site specific or different general permit if, but not limited to:

- a. The permittee is not in compliance with the conditions of this general permit;
- b. The discharge no longer qualifies for this general permit due to changed volume, chemical characteristics, site conditions, and/or regulations;
- c. Information becomes available that indicates water quality standards have been or may be violated; or
- d. If the department determines that quality of waters of the state should be better protected.

The permittee will be notified in writing of the need to apply for a site specific permit or a different general permit. When a site specific permit or different general permit is issued to the authorized permittee, the applicability of this general permit to the permittee is automatically terminated upon the effective date of the site specific or different general permit, whichever the case may be.

EXEMPTIONS FROM STATE PERMIT REQUIREMENTS

1. Persons that land apply under the operating permit issued to the wastewater treatment works (generator).
2. No-discharge facilities that generate less than 1,000 gallons per year and that are in compliance with Missouri Water Quality Standards (10 CSR 20-7.031).
3. One time or short-term land application events during clean up of spills or environmental emergencies with prior approval from the department.

LAND APPLICATION RATE CRITERIA

1. The permit application shall include testing dates and results for all testing within the previous five years. Testing results shall include at least two composite samples collected within the previous 12 months. See Monitoring, Records and Reporting Requirements section for additional sampling and testing required each year under the general permit. Testing parameters for the applicable SIC Codes are as follows:

| <u>Test Parameter</u> | <u>SIC Codes</u> |
|-------------------------------|--------------------------------|
| Total Kjeldahl Nitrogen (TKN) | 20xx |
| Total Phosphorus as P | 20xx |
| Total Sodium | 20xx and 5812 |
| Total Chloride as Cl | 20xx and 5812 |
| Total Suspended Solids | 20xx and 5812 |
| Oil & Grease | 203x, 205x-207x, 209x and 5812 |
| pH standard units | 20xx and 5812 |

2. Land application rates shall not exceed any of the following limitations:

- A. Sludge shall not exceed 3,000 gallons/acre/day and 9,000 gallons/acre/year.
- B. Treatment lagoon liquids shall not exceed 0.2 inch/acre/hour, 0.5 in/acre/day, 1.0* in/acre/week, and 12 in/acre/year.
- C. Composite samples of wastes shall be tested four times/year during land application periods. Application rates shall not exceed the following:

| <u>Parameter</u> | <u>Maximum Annual Loading **</u> |
|-------------------------------|----------------------------------|
| Total Kjeldahl Nitrogen (TKN) | 150 lbs/acre/year |
| Total Suspended Solids | 4000 lbs/acre/year |
| Oil & Grease | 1000 lbs/acre/year |
| pH standard units | 6.0 to 9.0 in applied wastes |

Note: * 1.0 inch/acre = 27,154 gallons.
** mg/L multiplied by 0.00834 = pounds per 1000 gallons.

REQUIREMENTS AND BEST MANAGEMENT PRACTICES

1. The facility shall be operated as a no-discharge facility in accordance with 10 CSR 20-6.015(1)(B)7. A no-discharge facility is a facility designed and operated:
 - a. to hold or land apply without direct discharge to surface or subsurface waters of the state, all waste flows and associated storm water flows for the wettest one-in-ten year precipitation and the twenty-five year twenty-four hour rainfall;
 - b. wastes are not land applied during frozen, snow covered, or saturated soil conditions.
2. Annual application rates shall conform to the Land Application Management Plan submitted with the permit application and shall not exceed the rates specified under the Land Application Rate Criteria section of this permit.
3. Land application rates shall not cause surface ponding of applied waste or runoff from the application sites during land application.
4. Plastic, paper, and other solid material exceeding 0.5 inch in diameter shall not be land applied.
5. Oil and grease that is separated through use of grease traps, oil & water separator, or other means shall be land applied by subsurface injection or incorporated by soil tillage within six (6) hours after surface application.
6. Land application shall not occur within 300 feet of a well, sinkhole, or losing stream; 150 feet from dwellings; and 50 feet from the property line, drainage ditch, watercourse, or stream bank, including intermittent flowing streams.
7. Wastes shall not be land applied within 30 days of crop harvesting or grazing by cattle.

REQUIREMENTS AND BEST MANAGEMENT PRACTICES (continued)

8. Do not land apply on field slopes exceeding 12 percent.
9. Land application shall not occur during frozen, snow covered, or saturated soil conditions.
10. Wastes shall not be applied to public use areas, gardens, or vegetable crops, unless the waste has been treated by a process to further reduce pathogens such as composting or equivalent treatment processes.
11. Wastes shall be land applied using application equipment that can spread the material uniformly over the entire application site. Dumping in batches or piles or spreading of a pile using a blade, disc, or similar equipment is not acceptable.
12. Land application equipment shall be properly operated and maintained and shall be visually checked daily during land application.
13. Land application site shall be well vegetated during the application periods or vegetation should be established as soon as practicable after waste incorporation within the normal crop planting and harvesting season.
14. Provide adequate waste storage or alternate disposal method as needed to match the land application windows for crop planting, harvesting, and inclement weather conditions. Operate storage basins so there is no discharge to waters of the state.
 - a. Recommended storage for grass land sites ranges from 60 to 120 days as follows: 60 days south of Highway 60; 75 days between Highway 60 and Highway 50; 90 days between Highway 50 and Highway 36; and 120 days north of Highway 36.
 - b. If storage is not provided, the wastes shall be hauled to a permitted wastewater treatment facility during inclement weather conditions when land application is not allowed.
15. A construction permit is required for installation of any storage structure. As-built specifications and operating manual shall be submitted with the operating application for general permit. Lagoon basins shall be operated so that maximum water elevation does not exceed one foot below the overflow point except due to the rainfall exceptions in this permit. The minimum operating water level shall be clearly marked and lagoons/storage basins shall be lowered to this minimum level prior to each winter. The recommended target date for achieving the minimum level is November 1.
16. These requirements do not supersede nor remove liability for compliance with county and other local ordinances.
17. General Criteria. The following water quality criteria shall be applicable to all waters of the state at all times including mixing zones. No water contaminant, by itself or in combination with other substances, shall prevent the waters of the state from meeting the following conditions:
 - a. Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses;
 - b. Waters shall be free from oil, scum, and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses;
 - c. Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor, or prevent full maintenance of beneficial uses;
 - d. Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal, or aquatic life;
 - e. There shall be no significant human health hazard from incidental contact with the water;
 - f. There shall be no acute toxicity to livestock or wildlife watering;
 - g. Waters shall be free from physical, chemical, or hydrologic changes;
 - h. Waters shall be free from used tires, car bodies, appliances, demolition debris, used vehicles or equipment, and solid waste as defined in Missouri's Solid Waste Law, section 260.200 RSMo, except as the use of such materials is specifically permitted pursuant to section 260.200-260.247.
18. All operators shall be provided training in proper land application procedures as outlined in this permit and in the Land Application Plan contained in the application.

MONITORING, RECORDS AND REPORTING REQUIREMENTS

1. At least four (4) composite samples of wastes to be land applied shall be collected each year and tested for the applicable parameters by SIC Code as listed in the Land Application Rate Criteria section of this permit. Each composite shall be based on at least seven (7) sub-samples collected from storage structures, pumping equipment, or land application vehicle at different times and locations over a 24-hour period. The four composite samples shall be collected at periodic intervals during land application periods. Each sample interval should represent about 25 percent of the total waste quantity land applied.
2. Maintain records on file at the facility for at least five years for the following:
 - a. rainfall received at storage basin/land application site;
 - b. dates and volumes of liquid (sludge) applied to land application site(s);
 - c. map of land application site(s);
 - d. crops grown/harvested from land application site(s);
 - e. monthly level of storage basin;
 - f. dates of wastewater discharges from storage basin/land application site(s).
3. An annual report shall be submitted to the department by January 28 or each year for the previous calendar year period. The annual report shall include a monthly summary of the records required under this permit.
4. A record keeping form shall be submitted with the general permit application.
5. All records and reports required under this permit shall be made available for inspection by the department during normal working hours and copies of such records and reports shall be provided upon request by the department.

TERMINATION

In order to terminate this permit, the permittee shall notify the Missouri Department of Natural Resources (MDNR) by submitting Form H, included with the State Operating Permit. The permittee shall complete Form H and mail it to MDNR at the address noted in the cover letter of this permit.

PERMIT RENEWAL

Page 1 of this permit specifies the expiration date of this permit. The "issue date" is the date the State Operating Permit is issued to the applicant. If land application will continue after the expiration date of this general permit, then the permittee must reapply to the department for the permit to be re-issued. The permittee will receive notification of the expiration date of the permit 180 days before the expiration date listed on page 1 of this permit. In order for the permit to be reissued, the permittee should submit appropriate application form(s) at least 90 days before the expiration of the permit.

LIST OF SIC CODES AND DESCRIPTIONS

| <u>SIC Code</u> | <u>Description</u> |
|-----------------|--------------------|
|-----------------|--------------------|

| | |
|------|---|
| 20xx | Major Group - Food and Kindred Products (2011-2099) |
| 201x | Meat Products (2011-2015) |
| 202x | Dairy Products (2021-2026) |
| 203x | Canned, Frozen and Preserved Fruits, Vegetables, and Food Specialties (2032-2038) |
| 204x | Grain Mill Products (2041-2048) |
| 205x | Bakery Products (2051-2053) |
| 206x | Sugar and Confectionery Products (2061-2068) |
| 207x | Fats and Oils (2071-2079) |
| 208x | Beverages (2082-2087) |
| 209x | Miscellaneous Food Preparations and Kindred Products (2091-2099) |
| 5812 | Restaurants (grease trap pumpings only for this permit) |

| |
|---|
| STANDARD CONDITIONS |
| IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED PART I STANDARD CONDITIONS DATED OCTOBER 1, 1980, AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN. |